# Case: test\_3

Initial stage: make a working directory, for example  $/tmp/test_3$  Note: when no precision is given, let the default values.

# 1 Creation of the case

HOMARD menu, tab « New case »

In this new window:

- Directory: select the working directory created above
- Mesh: select the file test\_3.00.med
- Check the option « Discrete Boundary »

The list « Discrete Boundary » is empty. Click New.

In this new window:

- Name: modify the default value by giving courbes
- Mesh: select the file test\_3.fr.med

Validate the creation of the boundary by the button « OK ». Back in the window for the creation of a case, the boundary courbes is added to the list of the discrete boundaries.

• Check the option « Analytic Boundary »

Here is a table with a single column that contains the list of the groups of the initial mesh: END\_1, END\_1\_A, END\_1\_B, ... Click New.

In this new window:

- Name: give cyl ext
- X centre: modify the default value by giving 50.
- Y centre: modify the default value by giving 25.
- Z centre: modify the default value by giving -25.
- X axis: modify the default value by giving 1.0
- Y axis: modify the default value by giving 0.0
- Z mini: modify the default value by giving 0.0
- Radius: modify the default value by giving 100.

Validate the creation of the analytical boundary by the button « OK ». The column cyl\_ext is added to the table; check the cell of the group EXT.

Add a new boundary, clicking New.

In this new window:

- Name: give cyl\_int
- X centre: 50.
- Y centre: 25.
- Z centre: -25.
- X axis: 1.0
- Y axis: 0.0
- Z mini: 0.0
- Radius: 50.

Validate the creation of the analytical boundary by the button « OK ». The column cyl\_int is added to the table; check the cell of the group INT.

Add a new boundary, clicking  ${\tt New}.$ 

In this new window:

- Check the icon of the sphere
- Name: give sphere\_1
- X centre: 50.
- Y centre: 25.

- Z centre: -25.
- Radius: 50.

Validate the creation of the analytical boundary by the button « OK ». The column <code>sphere\_1</code> is added to the table; check the cell of the group  $END_1$ .

Add a new boundary, clicking New.

In this new window:

- Check the icon of the sphere
- Name: give sphere\_2
- X centre: 450.
- Y centre: 25.
- Z centre: -25.
- Radius: 50.

Validate the creation of the analytical boundary by the button « OK ». The column sphere\_2 is added to the table; check the cell of the group END\_2.

Validate the creation of the case by the button «  $\ensuremath{\mathsf{OK}}$  ».

The case <code>Case\_1</code> and the initial iteration <code>MOYEU</code> are included in the object browser. In the SMESH module, the meshes <code>MOYEU</code> and <code>courbes</code> are included with an icon « Imported mesh ». A new tab Boundaries is added to the object browser with all the created boundaries.

# 2 The first iteration

### Creation of a new iteration

Select with the mouse (left) the initial iteration MOYEU, then (right) select the tab « Next iteration »

In this new window:

- Mesh n+1: modify the default value by giving MOYEU 1
- Click « Hypothesis / New »

## Creation of the first hypothesis

In this new window:

• Give the name Hypo

Validate the creation of the hypothesis by the button « OK ». The window of the creation of a new iteration is back. The hypothesis Hypo is included in the list of hypotheses

#### Validation of the iteration

Validate the creation of the iteration by the button « OK ». Under the case <code>Case\_1</code>, the iteration <code>Iter\_1</code> is added to the object browser with an icon meaning that the iteration is not computed. The hypothesis <code>Hypo</code> is added under the tab Hypotheses in the object browser.

### Compute the iteration

With the mouse, select the iteration Iter\_1, then select the tab « Compute and publish ».

The icon of the iteration Iter\_1 means that the iteration is computed. Under the iteration, the object browser grew rich of three files: both first ones are files text, being able to be displayed by the choice « Show file »; the third is the file med, containing the produced mesh, for information.

In the module SMESH, the mesh MOYEU 1 appears with the icon of a produced mesh.

## 3 The second iteration

Select with the mouse the iteration Iter\_1, then select the tab « Next iteration »

In this new window:

• Mesh n+1: modify the default value by giving MOYEU\_2

Validate the creation of the iteration by the button « OK ». Under the case <code>Case\_1</code>, the iteration <code>Iter\_2</code> is added to the object browser.

With the mouse, select the iteration Iter\_2, then select the tab « Compute and publish ». The same comments as for Iter1.

## 4 Controls

Set apart date, the file that is produced in the working directory 102/apad.02.bilan must be identical to the file test\_3.apad.02.bilan which is in the reference directory of the cases-tests. If a dump python is made, the produced file must be similar to the file test\_3.py which is in the reference directory of the cases-tests.

State of the window Salome at the end:

